

# District 08 Mobility Performance Report

2018 First Quarter

**DEPARTMENT OF TRANSPORTATION**  
**DISTRICT 8**  
**DIVISION OF OPERATIONS**  
**TMS SUPPORT**  
July 9, 2018

## District 08 Mobility Performance Report

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2018 First Quarter

### EXECUTIVE SUMMARY

#### Overview

Caltrans District 8 covers approximately 28,650 square miles of land, making it the largest district in California. District 8 consists of two counties; the San Bernardino and Riverside. Both counties are in Southern California and part of the Inland Empire. Riverside County has an estimated population of 2.4 million residents while San Bernardino County is estimated at 2.2 million residents. With a total of 4.6 million residents, District 8 comprises of twelve percent of California's total population.

The quarterly analysis in the Mobility Performance Report compares the data from the current quarter with over a year ago as well as the previous quarter.

- Vehicle Miles of Travel (VMT)
- Vehicle Hours of Delay (VHD)
- Lost Lane Miles (LLM)
- Delay by County and Route
- Detector Health
- Bottleneck Locations

Vehicle Detector Stations, installed on urban-area freeways are continuously collect data and are strategically placed at locations where congestion is regularly experienced. The MPR uses the data collected from Caltrans Performance Measurement System (PeMS) to produce this report and conduct traffic studies. This report presents congestion information at two speed thresholds: delay from vehicles traveling below 35 miles per hour (mph), and delay from vehicles traveling below 60 mph. The 35-mph threshold represents severe congestion, while delay at 60 mph represents all congestion. These thresholds are set by Caltrans and are based upon engineering experience and District input.

## FINDINGS

Vehicle Miles Traveled (VMT) in District 8 during quarter one of 2018 was 7.4 billion miles, which was a 2.7 percent increase when compared to VMT from a year ago and only a 0.2 percent increase from the previous quarter.

For quarter one in 2018 at the 35-mph speed threshold, Riverside county exhibited 1.34 million vehicle hours of delay followed by San Bernardino county at 1.05 million. Total delay in District 8 equaled 2.4 million Vehicle Hours of Delay for speeds under 35-mph. This was about 15.5 percent less than the previous quarter, but 48 percent increase when compared to the same quarter over a year ago. The 60-mph speed threshold saw a similar trend, during the first quarter of 2018, total delay equaled 7.1 million VHD, which was a decrease in delay by 9 percent from last quarter and an increase in delay by 26.5 percent for the same quarter over a year ago.

Average Vehicle Hours of Delay by Day of Week comparison the delay experienced in our District during each day of the week. The busiest day of the week as far as congestion for the first quarter of 2018, was Friday with one hundred and twenty-two thousand hours of delay for speed under 60 mph followed by Thursday with one hundred and one thousand hours.

### Top Ten AM Bottlenecks for the 2018 First Quarter:

Rank	County	Fwy	Location	Shift	Begin CA PM	Avg Extent (miles)	Total Delay (veh-hrs)	Average Duration (hrs)
1	Riverside	SR91-W	GREEN RIVER	AM	R.995	4.29	208620.8	3.7
2	Riverside	SR71-S	S-O PRADO DAM RD	AM	2.5	2.65	38153.7	3.4
3	Riverside	I15-N	BEDFORD WASH	AM	36.3	2.33	26377	2.7
4	Riverside	SR60-W	W-O Main Street	AM	11.6	3.41	24682.9	2.3
5	Riverside	SR91-W	PIERCE	AM	10.724	1.54	22809.6	2.7
6	Riverside	I15-N	.25 N-O 6th ST.	AM	45.93	2.60	22685.3	1.8
7	Riverside	I215-S	Center St	AM	44.908	2.53	22357.3	1.8
8	Riverside	I215-S	CENTRAL -WATKINS	AM	39.643	1.00	19836.6	2.9
9	San Bernardino	I15-S	JURUPA	AM	.969	1.49	17337.1	1.7
10	Riverside	I15-N	PHILADELPHIA UC	AM	52.27	0.82	16905.2	2.5

## Top Ten PM Bottlenecks for the 2018 First Quarter:

Rank	County	Fwy	Location	Shift	Begin CA PM	Avg Extent (miles)	Total Delay (veh-hrs)	Average Duration (hrs)
1	San Bernardino	I15-N	4TH ST NB ONR	PM	3.2	1.73	70392.8	3.9
2	Riverside	I15-S	El Cerito Rd(T)	PM	37.702	2.84	50167.4	2.0
3	Riverside	I15-S	CAJALCO ROAD	PM	37.1	4.07	48479.9	3.1
4	San Bernardino	I15-S	JURUPA	PM	0.969	1.82	46367.6	2.9
5	Riverside	SR60-E	PIGEON PASS	PM	14.509	2.73	40880.9	3.2
6	San Bernardino	I10-E	HAVEN AVE	PM	8.22	2.08	35139	1.9
7	San Bernardino	I10-E	ORANGE ST	PM	30.7	2.21	34572.2	2.0
8	San Bernardino	I10-E	MULBERRY CREEK	PM	12.6	2.04	32197.3	1.7
9	Riverside	SR91-W	PIERCE	PM	10.724	1.66	31991.9	3.4
10	San Bernardino	I210-E	E-B MILLIKEN ONR	PM	8	3.03	28187.7	2.1

## **PROJECT STATUS**

The following District 8 projects which are separated by county are currently in construction for the year of 2018. These projects will relieve congestion in District 8, however during the construction phase there might be an increase in delay during off-peak periods due to lane closures.

### **Riverside County:**

#### **RIV - Rte. 10: Location - City of Indio at Jefferson St, EA: 475204**

Postmile 51.70 to 53.10 - Demolish existing bridge and northbound Indio Boulevard overcrossing, and replace with new six-lane bridge.

#### **RIV - Rte 15: Location - From San Diego county line to 15/91 separation, EA: 0G7704**

Postmile R0.00 to 41.80 - Install New Fiber Optic infrastructure on Rte 15 from PM 0.00/41.80 and upgrade newly installed wireless vehicle detection stations. Connect all the existing TMS elements to the newly installed Fiber Optic infrastructure

#### **RIV - Rte 15,79: Location - Temecula @ I-15/SR-79 South Interchange, EA: 432304**

Rte 15 Postmile 3.00 to 4.00, Rte 79 Postmile 19.60 to 19.90 – Realign and reconstruct onramp and offramp.

#### **RIV - Rte 15: Location - Interstate 15/Cajalco Road Interchange, EA: 0J6104**

Postmile 36.40 to 37.60 - Interchange Improvements & Reconstruction

#### **RIV – Rte 15: Location – SR74 to SR-60 and I-215 to SR-74, EA: 0J080**

I-15 Corridor Improvement Project to add two Toll Express lane each direction from Cajalco Road to State Route 60, widen bridges and add sound wall.

**RIV – Rte 60: Location – Highway 60 at Potrera Blvd, City of Beaumont, EA: 34141**  
Postmile 28.70 to 30.20, New Bridge and Highway widening

**RIV – Rte 15: Location – I-15/SR-79, EA: 43230**  
Postmile 3.0 to 4.0, Interchange Improvement @ SR-79(Front St) and I-15.

**RIV – Rte 60: Location – Rte 60 from Milliken Ave to 91/215**  
Postmile 0.0 to R12.2, Replace wireless communication system with Fiber Optic Infrastructure.

**RIV – Rte 15: Location Limonite Ave/I-15, EA: 0E150**  
Postmile Various, Interchange Improvement

### **San Bernardino County:**

**SBD - Rte 10: Location – San Bernardino County from Redlands to Orange St, EA: 0K2914**  
Postmile 30.90 to 33.30, Lane Replacement in San Bernardino County in Redlands from Orange Street Undercrossing to Redlands Blvd off-ramp undercrossing.

**SBD - Rte 15: Location – Kenwood Ave to West Hesperia, EA: 0Q7404**  
Postmile 15.40 to 30.80, Lane Replacement on I-15 from 0.4 mile north of Kenwood Avenue to 0.3 mile south of West Hesperia OH

**SBD - Rte 15: Location – Victorville from Mojave Dr to Stoddard Wells Rd, EA: 3555VA**  
Postmile 42.50 to 46.00, In San Bernardino County in Victorville from 0.5 Mile North of Mojave Drive to 1.5 Mile North of Stoddard Wells Road Overcrossing, Widen I-15, Reconstruct 3 IC'S, Construct 2 new BR and widen 3 BR

**SBD – Rte Various Locations, San Bernardino and Riverside County, EA: 1C6304**  
Install Road Weather Information System and Modify Existing Electrical system

**SBD – Rte 215: Locations – Rte 215/Barton Rd, EA: 0J070**  
Postmile 0.58/1.95, Project to reconstruct the existing I-215/Barton Rd Interchange.

**SBD – Rte 210: Location – From Rte 10 to Rte 215, EA: 0E5514**  
Postmile 21.8 to 29.8, Install RMS, CCTV, VDS, CMS and Fiber Optic Backbone.

## 2018 First Quarterly Mobility Statistics District 8

Measure	Graph	Percentage Change									
Vehicle Miles of Travel (VMT)	<p>Miles (Billions)</p> <table><thead><tr><th>Period</th><th>VMT (Billions)</th></tr></thead><tbody><tr><td>2017 Q1</td><td>7.2</td></tr><tr><td>2017 Q4</td><td>7.4</td></tr><tr><td>2018 Q1</td><td>7.4</td></tr></tbody></table>	Period	VMT (Billions)	2017 Q1	7.2	2017 Q4	7.4	2018 Q1	7.4	Over one year ago	Over last quarter
		Period	VMT (Billions)								
2017 Q1	7.2										
2017 Q4	7.4										
2018 Q1	7.4										
		2.7% ↑	0.2% ↑								
Total Vehicle Hours of Delay (VHD) at 35 mph	<p>Hours (Millions)</p> <table><thead><tr><th>Period</th><th>VHD (Millions)</th></tr></thead><tbody><tr><td>2017 Q1</td><td>1.60</td></tr><tr><td>2017 Q4</td><td>2.80</td></tr><tr><td>2018 Q1</td><td>2.40</td></tr></tbody></table>	Period	VHD (Millions)	2017 Q1	1.60	2017 Q4	2.80	2018 Q1	2.40	Over one year ago	Over last quarter
		Period	VHD (Millions)								
2017 Q1	1.60										
2017 Q4	2.80										
2018 Q1	2.40										
		47.3% ↑	-15.5% ↓								
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 35 mph	<p>Hours (Thousands)</p> <table><thead><tr><th>Period</th><th>VHD (Thousands)</th></tr></thead><tbody><tr><td>2017 Q1</td><td>23.0</td></tr><tr><td>2017 Q4</td><td>39.0</td></tr><tr><td>2018 Q1</td><td>33.0</td></tr></tbody></table>	Period	VHD (Thousands)	2017 Q1	23.0	2017 Q4	39.0	2018 Q1	33.0	Over one year ago	Over last quarter
		Period	VHD (Thousands)								
2017 Q1	23.0										
2017 Q4	39.0										
2018 Q1	33.0										
		43.1% ↑	-15.1% ↓								
Total Vehicle Hours of Delay (VHD) at 60 mph	<p>Hours (Millions)</p> <table><thead><tr><th>Period</th><th>VHD (Millions)</th></tr></thead><tbody><tr><td>2017 Q1</td><td>5.6</td></tr><tr><td>2017 Q4</td><td>7.8</td></tr><tr><td>2018 Q1</td><td>7.1</td></tr></tbody></table>	Period	VHD (Millions)	2017 Q1	5.6	2017 Q4	7.8	2018 Q1	7.1	Over one year ago	Over last quarter
		Period	VHD (Millions)								
2017 Q1	5.6										
2017 Q4	7.8										
2018 Q1	7.1										
		26.5% ↑	-9.6% ↓								
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 60 mph	<p>Hours (Thousands)</p> <table><thead><tr><th>Period</th><th>VHD (Thousands)</th></tr></thead><tbody><tr><td>2017 Q1</td><td>78</td></tr><tr><td>2017 Q4</td><td>106</td></tr><tr><td>2018 Q1</td><td>97</td></tr></tbody></table>	Period	VHD (Thousands)	2017 Q1	78	2017 Q4	106	2018 Q1	97	Over one year ago	Over last quarter
		Period	VHD (Thousands)								
2017 Q1	78										
2017 Q4	106										
2018 Q1	97										
		24.5% ↑	-8.7% ↓								

Measure	Graph	Percentage Change	
Average Vehicle Hours of Delay by Day of Week at 60 mph		Largest Magnitude Decrease over one year ago	Largest Magnitude Decrease over last quarter
		—	Thursday -15.5%
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		Monday 38.2%	Friday 2.7%
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Weekdays		Largest Magnitude Weekday Decrease over one year ago	Largest Magnitude Weekday Decrease over last quarter
		—	5 PM -17%
		Largest Magnitude Weekday Increase over one year ago	Largest Magnitude Weekday Increase over last quarter
		4 PM 44.3%	9 PM 66.6%
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Saturdays		Largest Magnitude Saturday Decrease over one year ago	Largest Magnitude Saturday Decrease over last quarter
		12 AM -10.2%	5 PM -27.6%
		Largest Magnitude Saturday Increase over one year ago	Largest Magnitude Saturday Increase over last quarter
		1 PM 124.1%	12 PM 12.6%
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Sundays/Holidays		Largest Magnitude Sun./Holiday Decrease over one year ago	Largest Magnitude Sun./Holiday Decrease over last quarter
		12 AM -23.8%	2 PM -30.2%
		Largest Magnitude Sun./Holiday Increase over one year ago	Largest Magnitude Sun./Holiday Increase over last quarter
		5 PM 105.7%	8 PM 38.8%

Measure	Graph	Percentage Change	
Total Vehicle Hours of Delay (VHD) by County at 35 mph	<p>Hours (Millions)</p> <p>2017 Q1 2017 Q4 2018 Q1</p> <p>Riverside San Bernardino</p>	Largest Magnitude Decrease over one year ago	Largest Magnitude Decrease over last quarter
		-	San Bernardino -19.3%
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		Riverside 73%	-
Average Non-Holiday Weekday Equivalent Lost Lane Mile Hours at 35 mph	<p>Miles</p> <p>2017 Q1 2017 Q4 2018 Q1</p> <p>AM Peak (6 AM to 10 AM) Off-Peak Day (10 AM to 3 PM) PM Peak (3 PM to 7 PM) Off-Peak Night (7 PM to 6 AM)</p>	Largest Magnitude Decrease over one year ago	Largest Magnitude Decrease over last quarter
		Off-Peak Night -0.8%	PM Peak -17.2%
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		PM Peak 28.3%	-
Average Number of Good and Bad Detectors	<p>Number of Detectors</p> <p>Average of Good Average of Bad</p> <p>2017 Q1 2017 Q4 2018 Q1</p>	Change in Good over one year ago	Change in Good over last quarter
		4%	-14%
		Change in Bad over one year ago	Change in Bad over last quarter
		9%	20%



Congestion by Route											
Route	County	Vehicle Hours of Delay at 35 mph			Difference 2018 Q1-2017 Q1		Difference 2018 Q1-2017 Q4		Rank		
		2017 Q1	2017 Q4	2018 Q1	Absolute	Percentage	Absolute	Percentage	2017 Q1	2017 Q4	2018 Q1
SR91	Riverside	207,312	549,387	466,192	258,880	124.9%	-83,195	-15.1%	4	1	1
I15	Riverside	155,425	462,626	369,871	214,446	138.0%	-92,755	-20.0%	5	2	2
I10	San Bernardino	258,424	396,182	348,248	89,824	34.8%	-47,934	-12.1%	2	3	3
I215	Riverside	278,234	339,759	346,998	68,765	24.7%	7,239	2.1%	1	5	4
I15	San Bernardino	251,675	381,892	294,912	43,237	17.2%	-86,980	-22.8%	3	4	5
I210	San Bernardino	144,766	235,178	158,863	14,097	9.7%	-76,315	-32.4%	6	6	6
I215	San Bernardino	64,238	94,448	107,511	43,273	67.4%	13,063	13.8%	9	9	7
SR60	Riverside	106,985	96,890	106,959	-26	0.0%	10,069	10.4%	7	8	8
SR60	San Bernardino	92,677	147,314	90,654	-2,023	-2.2%	-56,660	-38.5%	8	7	9
SR71	San Bernardino	38,017	51,574	53,871	15,854	41.7%	2,297	4.5%	10	10	10
SR71	Riverside	12,020	33,790	29,736	17,716	147.4%	-4,054	-12.0%	11	12	11
I10	Riverside	11,747	39,599	15,311	3,564	30.3%	-24,288	-61.3%	12	11	12
SR259	San Bernardino	1	59	1	0	0.0%	-58	-97.6%	13	13	13
<b>TOTALS</b>		<b>1,621,522</b>	<b>2,828,698</b>	<b>2,389,128</b>	<b>767,606</b>	<b>47.3 %</b>	<b>-439,570</b>	<b>-15.5 %</b>			